

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/09603

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H01S3/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01S3/00-3/30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 5926494 A (Hughes Electronics Corp.), 20 July, 1999 (20.07.99), Figs. 1, 2, 4 to 6; description, column 5, line 25 to column 7, line 4; column 1, lines 29 to 64 (Family: none)	1-3, 8, 13 4-7, 9-12, 14-15
Y	GB 1488406 A (Compagnie Industrielle Des Lasers), 12 October, 1977 (12.10.77), Description, column 1, lines 12 to 19 & JP 50-143494 A ~ & FR 2260883 A & DE 2505641 A	4

Further documents are listed in the continuation of Box C.  See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
17 November, 2003 (17.11.03)

Date of mailing of the international search report  
02 December, 2003 (02.12.03)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Faxsimile No.

Telephone No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-284257 A (NEC Corp.), 15 October, 1999 (15.10.99), Claims; all drawings (Family: none)	5, 11-12
Y	US 5159605 A (Mitsubishi Denki Kabushiki Kaisha), 27 October, 1992 (27.10.92), Description, column 9, lines 24 to 33; Fig. 17 & JP 2000-286485 A Claims 5 to 6 & JP 4-174577 A & DE 4101403 A & US 5257277 A & GB 2241109 A	6-7
Y	Walter Koechner., Solid-State Laser Engineering., Germany: Springer-Verlag, 1999, pages 425 to 428  US 5553088 A (Deutsche Forschungsanstalt fuer Luft- und Raumfahrt e.V.), 03 September, 1996 (03.09.96), Description, column 9, lines 16 to 41; Fig. 1 Abstract; Figs. 16 to 20 & EP 632551 A & DE 4344227 A	9-10, 14-15
X A		1 1-20
A	Arturo Chavez-Pirson et al., Multimode-pumped monolithic amplifier arrays based in erbium-doped phosphate glass., In: Technical Digest of Optical Amplifiers and Their Applications (OAA 2003), July 6-9, 2003, pages 190 to 192	16-20
A	US 3882415 A (Owens-Illinois, Inc.), 06 May, 1975 (06.05.75), Description, column 8, lines 2 to 9 & JP 49-113810 A & DE 2406383 A	1-15
A	US 5148441 A (Kabushiki Kaisha Topcon), 15 September, 1992 (15.09.92), Abstract; all drawings & JP 4-30484 A	13-20
A	JP 11-177165 A (Director-General of National Aerospace Laboratory of Science and Technology Agency), 02 July, 1999 (02.07.99), Par. No. [0006]; Fig. 5	1-20

**INTERNATIONAL SEARCH REPORT**International application No.  
PCT/JP03/09603**Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 1-15 involves the invention relating to the shape of a flat solid laser medium.

Claims 16-20 involves the invention relating to the joining of a flat solid laser medium.

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**     The additional search fees were accompanied by the applicant's protest.  
                             No protest accompanied the payment of additional search fees.